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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,682	10/17/2003	Li-Sen Chuang	9507-US-PA	2681
31561	7590	12/27/2004	EXAMINER	
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE			DUONG, TAI V	
7 FLOOR-1, NO. 100			ART UNIT	
ROOSEVELT ROAD, SECTION 2			PAPER NUMBER	
TAIPEI, 100			2871	
TAIWAN			DATE MAILED: 12/27/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/605,682		CHUANG ET AL.	
	Examiner		Art Unit	
	Tai Duong		2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7,8 and 10-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7,8 and 10-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the recited feature "the pixel electrodes, the common electrodes and the dielectric layer together form a plurality of pixel storage capacitors" of claim 7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 14, 16, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Ochiai et al.

Note Figs.1-3 and especially Fig. 4 which identically disclose the claimed method comprising the steps of forming a color filter layer FIL over the first substrate to cover the thin film transistors TFT; forming common electrodes CT and pixel electrodes PX being alternatively positioned over parts of the color filter layer FIL; *forming a dielectric layer OC between the pixel electrodes PX and the common electrodes CT, and covering the pixel electrode*; forming a first alignment film ORI1 over the color filter layer covering the pixel and common electrodes; forming a second alignment film OR2 over a second substrate SUB2; injecting a liquid crystal layer LC between the first alignment film ORI1 and a second alignment film ORI2; and forming a conductive structure CH1 in the color filter layer for electrically connecting the drain region with a corresponding pixel electrode. See discussions of the recited features of the remaining dependent claims in pages 5-7, paragraphs 0135 – 0178.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochiai et al.

The only difference between the LCD of Figs. 1-4 of Ochiai et al and that of the instant claim is the common electrodes, the pixel electrodes and the dielectric layer OC forming a plurality of pixel storage capacitors. Ochiai et al disclose in Fig. 11 the common electrodes CT overlapping the pixel electrodes PX with the dielectric layers (PSV1, PSV2) between to form a plurality of pixel storage capacitors. Thus, it would have been obvious to a person of ordinary skill in the art to employ the common electrodes, the pixel electrodes and the dielectric layer OC forming a plurality of pixel storage capacitors for simplifying the fabrication process, as compared with the case of forming an additional capacitance line CL as shown in Fig. 3.

Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochiai et al in view of Ono et al.

The only difference between the LCD of Figs. 1-4 of Ochiai et al and that of the instant claim is a planarization layer over the color filter layer. Ono et al disclose in Figs. 8 and 9 that it was known to employ a planarization layer OC over the color filter layer FIL (paragraph 0093). Thus, it would have been obvious to a person of ordinary skill in the art to employ a planarization layer over the color filter layer of the LCD of Ochiai et al for reducing defects due to stepped portions, as disclosed by Ono et al.

Claims 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochiai et al in view Ono et al.

The only difference between the method and LCD of Figs. 1-4 of Ochiai et al and those of the instant claims is the black matrix being formed in the space between the red, green and blue filter blocks. Ono et al disclose in Fig. 1 that it was known to employ a black matrix BM (under CL) being formed in the space between the red, green and blue filter blocks (FIL(R), FIL (G)). Thus, it would have been obvious to a person of ordinary skill in the art in view of Ono et al to employ the above black matrix arrangement in the method and LCD of Ochiai et al for blocking light leakage at the space between color filters thereby improving display contrast.

Response to Applicant's remarks

Applicant's remarks regarding amended claim 7 that since the color filter is formed in the second substrate (instead of in the first substrate) in Fig. 11 of Ochiai, the combination is not appropriate. These remarks are not persuasive because Applicant argued against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Also, see the below factual inquiries for the 103 rejection. In addition, if the color filter is formed in the first substrate in Fig. 11 of Ochiai, amended claim 7 will be anticipated by Fig. 11 or rejected under 102 rejection.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action. A

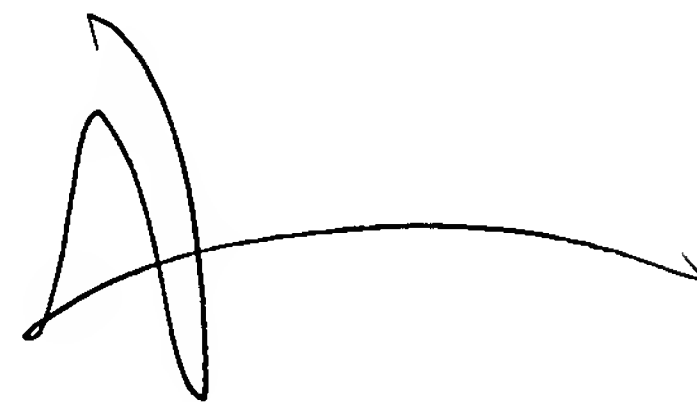
Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



TVD

12/04



KENNETH PARKER
PRIMARY EXAMINER